Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Promoting Efficient Use of Spectrum Through	)	
Elimination of Barriers to the Development of	)	WT Docket No. 00-230
Secondary Markets	)	
	)	

To: The Commission

COMMENTS OF GATEWAY COMMUNICATIONS, INC.

Gateway Communications, Inc. ("Gateway"), by its attorneys and pursuant to Section 1.415 of the Commission's Rules, hereby submits its comments to the Second Further Notice of Proposed Rule Making ("*Second Further Notice*") in the above-captioned proceeding.[1] In brief, Gateway is proposing that the Commission expand its new secondary market mechanism to include one that would allow equipment manufacturers to file an application for authority to manage a "private commons" using licensed spectrum in geographic areas where there has been a market failure (*e.g.*, where spectrum has been offered for licensing by auction but there is no high bidder, or when spectrum that was previously licensed has been returned to the Commission) with little prospect of a successful re-auction in the near future. This license would be granted in exchange for a reasonable one-time payment to the United States Treasury, or a modest spectrum use fee that would be payable on an annual basis to the FCC. As discussed in

[1] *See* In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rule Making*, WT Docket No. 00-230, 33 CR 922 (*rel.*, September 2, 2004) ("*Rural Spectrum Second R&O*"). The Wireless Telecommunications Bureau announced an extension of the comment and reply deadline for the *Second Further Notice* by *Public Notice* DA 04-3571, released on November 9, 2004. Parties commenting on the Second Further Notice are now required to file comments by **January 17, 2005**, and reply comments by **February 17, 2005**.

greater detail below, a re-licensing mechanism such as this would be in the public interest because it would allow spectrum that might otherwise lay fallow for years (*i.e.*, awaiting a re-auction) to be made available without delay, where an eligible user agrees to provide service or otherwise to make the spectrum available to the public within a reasonable time frame. Moreover, it would encourage the development of lower cost niche wireless services, as well as the deployment of licensed peer-to-peer services, in areas where once-licensed spectrum is currently unavailable. Finally, it promises to recoup a portion of the re-licensed spectrum's value for the benefit of the United States Treasury without requiring the FCC to incur the administrative costs of scheduling and conducting a re-auction, where the market valuation of the re-auctioned spectrum is likely to be relatively low.

STATEMENT OF INTEREST

Gateway is a privately held Arizona corporation that was founded in 1994. The company designs and manufactures 2-way VHF telemetry solutions that support remote monitoring, sensoring and control applications, including automatic meter reading and automatic vehicle location. Gateway's DigiGate® technology provides a narrowband wireless network platform which enables the end-to-end data communications link between the end node and the application provider. The low-cost of infrastructure equipment, combined with its ease of installation and low maintenance requirement, makes the DigiGate® system an ideal solution for applications which cannot benefit from traditional high cost and high bandwidth systems. To date, Gateway has successfully completed the turnkey construction of 218-219 MHz licenses in numerous cities, and

DigiGate® telemetry service is now providing coverage to over 100 million in population (POPs).

Gateway has a significant interest in this proceeding because the company's DigiGate® technology is particularly well suited for deployment under a "private commons" spectrum access model. Gateway applauds the Commission for its work in fostering secondary spectrum markets and its willingness to explore new means of providing the public with access to spectrum and ensuring that underutilized spectrum can be put to productive use.

COMMENTS

In recent years, there has been an explosion of wireless technology in the marketplace – using both licensed and unlicensed spectrum – and most of the focus has been on the provision of broadband services. The growing capabilities of commercial wireless services, as well as the proliferation of Wi-Fi hotspots and peer-to-peer networking, are a testament to a culture of innovation in the wireless industry and the Commission's forward-looking spectrum management policies. At the same time, technology has also paved the way for innovation in the narrowband space and for smaller-scale niche deployments. In some instances, these applications – such as two-way communications in the Family Radio Service - are adequately supported by unlicensed spectrum. However, in many other instances, the need for security and quality of service demands that licensed spectrum be used. Moreover, the transaction costs associated with more traditional spectrum licensing and leasing arrangements may be too high for any single niche user to justify entering into negotiations to obtain a partitioned and/or disaggregated license, or leased access to the licensed spectrum they need. In this

instance, Gateway believes that re-licensing unwanted spectrum to a manufacturer of type-accepted equipment and allowing the equipment manufacturer to manage a "private commons" would provide an appropriate solution.[2]

I. The Private Commons Framework Provides the Commission with a Way to Address Market Failure and to Make Underutilized Spectrum Available to the Public

To facilitate the use of advanced technologies and to promote increased access to and the efficient use of wireless spectrum, the FCC adopted a new secondary market framework that it calls a "private commons." The private commons option provides a cooperative mechanism for licensees (or lessees) to make access to their licensed spectrum available to a similar class of end users, under technical requirements for sharing use of the licensed band managed by the licensee (or lessee).[3] The licensee (or lessee) authorizes users of devices operating at particular technical parameters specified by the licensee (or lessee) to operate on the licensed frequencies, consistent with the applicable technical requirements and use restrictions under the license authorization, using peer-to-peer (device-to-device) technologies.[4]

Gateway respectfully submits that the Commission should consider licensing (or otherwise making available) unwanted spectrum – *e.g.*, licenses that have been returned to the Commission for cancellation or that have been offered to the public in an auction (or multiple auctions) but remain unsold. Gateway proposes that this unwanted spectrum

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[2] It may not be necessary to license only equipment manufacturers under the new mechanism, but this would create a strong incentive for equipment and service development.

[3] Specific characteristics of the private commons spectrum access model are discussed in paragraphs 91-99 of the *Rural Spectrum Second R&O*

[4] *Id.* at ¶ 92.

be put into the hands of manufacturers of type-accepted equipment that come to the Commission with a concrete plan to make the spectrum available to the public promptly and/or to initiate their own service using the spectrum within a reasonable time frame. As an immediate example, the Commission should consider adopting this mechanism for licenses in the 218-219 MHz radio service (formerly "IVDS") that were returned to the FCC.

The potential benefits of such a re-licensing approach are many and varied. By granting access to the spectrum to a *bona fide* equipment manufacturer in the manner described above, it would put underutilized spectrum into the hands of a company (or individual) that has demonstrated its willingness to commit resources to a licensed radio service (*i.e.*, the time and money it has spent designing and developing equipment and going through the Part 2 equipment authorization process). It would create an economic incentive for companies to create new technologies and business applications for marginalized spectrum, and it would provide equipment manufacturers with a real-world setting to "showcase" their products. In this way, spectrum that was previously languishing at the Commission – relegated to the "scrap heap" as it were – may become fertile ground for innovation that would benefit the public directly in the newly re-licensed area, as well as indirectly through demonstrating the viability of new technologies and/or business models that may ultimately prove successful for the benefit of all licensees/users of that service.

Licensing marginalized spectrum to equipment manufacturers and allowing them to operate a "private commons" would create spectrum opportunities for small businesses as well as women- and minority-owned businesses, who could obtain access

to licensed spectrum *without any ongoing licensing or lease fees* upon purchasing or leasing appropriate equipment and agreeing to abide by general terms and conditions for spectrum access (designed to maximize spectrum use and minimize the potential for harmful interference between authorized users).

As envisioned by Gateway, the equipment manufacturer could then work directly with these small businesses and entrepreneurs, and/or with local radio shops, to develop complete integrated hardware and software solutions that would operate on a stand-alone basis (serving niche markets) or be integrated into a larger, wide-area network, such as the DigiGate® Wireless system.

Section 257 of the Telecommunications Act of 1996 (Telecommunications Act or 1996 Act)[5] requires the Commission to identify and eliminate "market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services." By creating a mechanism to license unused spectrum to equipment manufacturers, and allowing licensees to operate a private commons with their licensed spectrum, the Commission would eliminate market entry barriers for entrepreneurs and small businesses that need to gain access to licensed spectrum for the provision of wireless telemetry and other niche services.

[5] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), Section 257.

II. Re-Licensing Unwanted Spectrum to Equipment Manufacturers Will Not Jeopardize the Integrity of the Commission's Auction Processes and Will Not Harm Any Licensee or Spectrum User

As described above, granting licenses to *bona fide* equipment manufacturers where the marketplace has already determined that the spectrum in question is of marginal value – under the condition that they agree to manage a private commons or otherwise to make service available to the public within a reasonable time frame – makes good sense and is in the public interest. At the same time, because availability of the proposed re-licensing mechanism would be limited to those spectrum bands and individual licenses that are deemed appropriate by the Commission, it will not threaten the integrity of the Commission's successful auction procedures, or threaten to erode the market value of similar spectrum held by other licensees.

Where licenses are voluntarily returned to the Commission for cancellation, or when they are not successfully auctioned after one or more attempts – and the Commission makes a reasonable finding that a re-auction is unlikely to garner a substantial number of bidders – this can often be evidence of market failure. In other words, the marketplace has determined that the value of the licensed spectrum, plus the potential proceeds/value that can be gained through putting the spectrum into use (or making the spectrum available on the secondary market), is outweighed by the various costs associated with that spectrum (*e.g.*, costs incurred in acquiring the spectrum, constructing and operating a system, regulatory compliance, etc.). Making such spectrum available for no charge to a manufacturer of equipment for that particular band – or making a license available for a reasonable price, such as a 50% reduction over the previous high bid price, or where the spectrum was not successfully auctioned, a similar

reduction of the most recent minimum opening bid price – does not provide a windfall to the new licensee. Since the marketplace has spoken, and the valuation is *de minimus* – simply allowing that spectrum to be put to use in exchange for that *de minimus* value will not threaten the valuation of other licenses that were successfully auctioned. Instead, Gateway submits that the valuation of other licenses will only be enhanced by re-licensing in this manner, because spectrum that was previously perceived to have little or no value would presumably have greater value after it is actually put to use. Moreover, to the extent that new equipment can be developed and new uses for the spectrum are conceived, these are benefits that accrue to all licensees in the radio service, in the form of potential new business opportunities and new types of equipment that have been tested in a real world setting. If equipment manufacturers agree to manage a "private commons" using the licensed spectrum, or if the cost of the spectrum is more than a nominal amount, it should allow equipment manufacturers the choice of paying for their licenses over time (*i.e.*, using proceeds garnered from the sale of their equipment and/or services). To the extent that the Commission may need to seek authority from Congress to permit spectrum "royalty" payments, it should do so as a means of promoting the "private commons" concept.

Again, as envisioned by Gateway, availability of the proposed re-licensing mechanism would be limited to radio services and individual licenses where the Commission has determined that a "private commons" approach is appropriate. It is by no means intended to disrupt the FCC's successful auction procedures, but rather to play a complimentary role in providing an alternate means of putting license spectrum to its highest and best use where auctions have proven to be unsuitable. As such, the integrity

of the commission's procedures would be preserved. Ensuring that this otherwise idle spectrum is licensed and put into productive use is clearly in the public interest and should be considered by the Commission as part of its ongoing secondary markets proceeding.

CONCLUSION

Wherefore, Gateway respectfully requests that the Commission consider adopting a model for the re-licensing of unused and unwanted spectrum to manufacturers of type-accepted equipment that agree to make the spectrum available to the public and/or to initiate their own service using the spectrum within a reasonable time frame.

Respectfully Submitted,

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